

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/536,716  
Source: 1 FWP  
Date Processed by STIC: 6/14/06

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IFWP

## RAW SEQUENCE LISTING

DATE: 06/14/2006

PATENT APPLICATION: US/10/536,716

TIME: 10:36:15

Input Set : E:\8932003W.APP

Output Set: N:\CRF4\06142006\J536716.raw

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3 <110> APPLICANT: REGENTS OF THE UNIVERSITY OF MINNESOTA
5 <120> TITLE OF INVENTION: HOMOLOGOUS RECOMBINATION IN MULTIPOTENT ADULT
6   PROGENITOR CELLS
8 <130> FILE REFERENCE: 890003-2003.WO
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/536,716
C--> 11 <141> CURRENT FILING DATE: 2005-05-25
13 <150> PRIOR APPLICATION NUMBER: 60/429,631
14 <151> PRIOR FILING DATE: 2002-11-27
16 <150> PRIOR APPLICATION NUMBER: PCT/US02/04652
17 <151> PRIOR FILING DATE: 2002-02-14
19 <150> PRIOR APPLICATION NUMBER: PCT/US00/21387
20 <151> PRIOR FILING DATE: 2000-08-04
22 <160> NUMBER OF SEQ ID NOS: 5
24 <170> SOFTWARE: PatentIn Ver. 3.2
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 1674
28 <212> TYPE: DNA
29 <213> ORGANISM: Homo sapiens
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34 ttccaggagt tccaaaggaa gatgtatgaa gccttgaaag agatggattc taatacagtc 180
35 attgaaagat tccccacaat tgggtcaactg ttggcaaaag cttggttgaa tccttttatt 240
36 ttagcatatg atgaaagcca aaaaattcta atatggtgct tatgttgtct aattaacaaa 300
37 gaaccacaga attctggaca atcaaaactt aactcctgga tacagggtgt attatctcat 360
38 atactttcag cactcagatt tgataaagaa gttgctcttt tcaactcaagg tcttgggtat 420
39 gcacctatag attactatcc tggtttgctt aaaaatatgg ttttatcatt agcgtctgaa 480
40 ctccagagaga atcatcttaa tggatttaac actcaaaggc gaatggctcc cgagcgagtg 540
41 gcgtccctgt cagcagtttg tgtcccactt attaccctga cagatgttga cccctggtg 600
42 gaggtctctc tcatctgtca tggacgtgaa cctcaggaaa tcctccagcc agagttcttt 660
43 gaggtgttaa acgaggccat tttgctgaag aagattttct tccccatgtc agctgtagtc 720
44 tgctcttggt ttccggcacct tcccagcctt gaaaaagcaa tgctgcatct ttttgaaaag 780
45 ctaatctcca gtgagagaaa ttgtctgaga aggatcgaat gctttataaa agattcatcg 840
46 ctgctcaag cagcctgcc cctgccata ttccgggttg ttgatgagat gttcaggtgt 900
47 gcaactctgg aaaccgatgg ggccctggaa atcatagcca ctattcaggt gtttacgcag 960
48 tgctttgtag aagctctgga gaaagcaagc aagcagctgc ggtttgact caagacctac 1020
49 tttccttaca cttctccatc tcttgccatg gtgctgctgc aagaccctca agatatccct 1080
50 cggggacact ggctccagac actgaagcat atttctgaac tgctcagaga agcagttgaa 1140
51 gaccagactc atgggtcctg cggagggtccc tttgagagct ggttcctgtt cattcacttc 1200
52 ggaggatggg ctgagatggg ggcagagcaa ttactgatgt cggcagccga accccccacg 1260
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56 cctgcacaac agctgatcag gcaccttctc ctcaacttcc tgctctgggc tcctggaggc 1500
57 cacacgatcg cctgggatgt catcaccctg atggctcaca ctgctgagat aactcacgag 1560
58 atcattggct ttcttgacca gaccttgtag agatgggaatc gtcttgccat tgaaagccct 1620
59 agatcagaaa aactggcccg agagctcctt aaagagctgc gaactcaagt ctag 1674
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63 <211> LENGTH: 557
64 <212> TYPE: PRT
65 <213> ORGANISM: Homo sapiens
67 <400> SEQUENCE: 2
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71 Gln Lys Leu Ser Val Trp Asp Gln Ala Ser Thr Leu Glu Thr Gln Gln
72 20 25 30
74 Asp Thr Cys Leu His Val Ala Gln Phe Gln Glu Phe Leu Arg Lys Met
75 35 40 45
77 Tyr Glu Ala Leu Lys Glu Met Asp Ser Asn Thr Val Ile Glu Arg Phe
78 50 55 60
80 Pro Thr Ile Gly Gln Leu Ala Lys Ala Cys Trp Asn Pro Phe Ile
81 65 70 75 80
83 Leu Ala Tyr Asp Glu Ser Gln Lys Ile Leu Ile Trp Cys Leu Cys Cys
84 85 90 95
86 Leu Ile Asn Lys Glu Pro Gln Asn Ser Gly Gln Ser Lys Leu Asn Ser
87 100 105 110
89 Trp Ile Gln Gly Val Leu Ser His Ile Leu Ser Ala Leu Arg Phe Asp
90 115 120 125
92 Lys Glu Val Ala Leu Phe Thr Gln Gly Leu Gly Tyr Ala Pro Ile Asp
93 130 135 140
95 Tyr Tyr Pro Gly Leu Leu Lys Asn Met Val Leu Ser Leu Ala Ser Glu
96 145 150 155 160
98 Leu Arg Glu Asn His Leu Asn Gly Phe Asn Thr Gln Arg Arg Met Ala
99 165 170 175
101 Pro Glu Arg Val Ala Ser Leu Ser Arg Val Cys Val Pro Leu Ile Thr
102 180 185 190
104 Leu Thr Asp Val Asp Pro Leu Val Glu Ala Leu Leu Ile Cys His Gly
105 195 200 205
107 Arg Glu Pro Gln Glu Ile Leu Gln Pro Glu Phe Phe Glu Ala Val Asn
108 210 215 220
110 Glu Ala Ile Leu Leu Lys Lys Ile Ser Leu Pro Met Ser Ala Val Val
111 225 230 235 240
113 Cys Leu Trp Leu Arg His Leu Pro Ser Leu Glu Lys Ala Met Leu His
114 245 250 255
116 Leu Phe Glu Lys Leu Ile Ser Ser Glu Arg Asn Cys Leu Arg Arg Ile
117 260 265 270
119 Glu Cys Phe Ile Lys Asp Ser Ser Leu Pro Gln Ala Ala Cys His Pro
120 275 280 285
122 Ala Ile Phe Arg Val Val Asp Glu Met Phe Arg Cys Ala Leu Leu Glu
123 290 295 300
125 Thr Asp Gly Ala Leu Glu Ile Ile Ala Thr Ile Gln Val Phe Thr Gln
126 305 310 315 320

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128 Cys Phe Val Glu Ala Leu Glu Lys Ala Ser Lys Gln Leu Arg Phe Ala
129           325           330           335
131 Leu Lys Thr Tyr Phe Pro Tyr Thr Ser Pro Ser Leu Ala Met Val Leu
132           340           345           350
134 Leu Gln Asp Pro Gln Asp Ile Pro Arg Gly His Trp Leu Gln Thr Leu
135           355           360           365
137 Lys His Ile Ser Glu Leu Leu Arg Glu Ala Val Glu Asp Gln Thr His
138           370           375           380
140 Gly Ser Cys Gly Gly Pro Phe Glu Ser Trp Phe Leu Phe Ile His Phe
141 385           390           395           400
143 Gly Gly Trp Ala Glu Met Val Ala Glu Gln Leu Leu Met Ser Ala Ala
144           405           410           415
146 Glu Pro Pro Thr Ala Leu Leu Trp Leu Leu Ala Phe Tyr Tyr Gly Pro
147           420           425           430
149 Arg Asp Gly Arg Gln Arg Ala Gln Thr Met Val Gln Val Lys Ala Val
150           435           440           445
152 Leu Gly His Leu Leu Ala Met Ser Arg Ser Ser Ser Leu Ser Ala Gln
153 450           455           460
155 Asp Leu Gln Thr Val Ala Gly Gln Gly Thr Asp Thr Asp Leu Arg Ala
156 465           470           475           480
158 Pro Ala Gln Gln Leu Ile Arg His Leu Leu Leu Asn Phe Leu Leu Trp
159           485           490           495
161 Ala Pro Gly Gly His Thr Ile Ala Trp Asp Val Ile Thr Leu Met Ala
162           500           505           510
164 His Thr Ala Glu Ile Thr His Glu Ile Ile Gly Phe Leu Asp Gln Thr
165           515           520           525
167 Leu Tyr Arg Trp Asn Arg Leu Gly Ile Glu Ser Pro Arg Ser Glu Lys
168 530           535           540
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171 545           550           555
174 <210> SEQ ID NO: 3
175 <211> LENGTH: 21
176 <212> TYPE: DNA
177 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
181 primer
183 <400> SEQUENCE: 3
184 ctgccaacct gccatcttca g 21
187 <210> SEQ ID NO: 4
188 <211> LENGTH: 21
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
194 primer
196 <400> SEQUENCE: 4
197 aagagcagct agtacttctg g 21
200 <210> SEQ ID NO: 5

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201 &lt;211&gt; LENGTH: 20

202 &lt;212&gt; TYPE: DNA

203 &lt;213&gt; ORGANISM: Artificial Sequence

205 &lt;220&gt; FEATURE:

206 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence: Synthetic

207 primer

209 &lt;400&gt; SEQUENCE: 5

210 aggaaagtag gtcctgaggg

20

**VERIFICATION SUMMARY**

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DATE: 06/14/2006

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Input Set : E:\8932003W.APP

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L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date